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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/667,060	09/22/2003	Richard C. Schaflein	2002P15893US01	7828

7590 11/15/2006

Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
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EXAMINER

HOANG, PHUONG N

ART UNIT PAPER NUMBER

2194

DATE MAILED: 11/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/667,060

Applicant(s)

SCHAFFLEIN ET AL.

Examiner

Phuong N. Hoang

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 32 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/7/06</u> . | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1 – 32 are pending for examination.
2. This office action is in response to amendment filed 8/7/06.

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 6 – 7, 32 are rejected under 35 U.S.C. 102(b) as being anticipated by Selitrennikoff, US patent no. 6,301,612.**

5. **As to claim 1**, Selitrennikoff teaches a method reassigning resources in a soft programmable logic controller (PLC), said reassigning comprising the steps of:

selecting an interface (server locating the appropriate operating system or device driver of the client, col. 1 - 20, especially col. 3 lines 45 – 55) in a first operating environment;

selecting a virtual slot in a second operating environment for installation of the interface (locate the driver of the client operating system, col. 3 lines 45 - 55);

creating an installation file in the first operating environment for installation of the interface in the second operating environment (the updated operating system components and device drivers are made available for transfer to the client computer, col. 3 lines 45 - 55); and

installing the interface in the second operating environment using the installation file to reassign a resource between the first operating environment and the second operating environment (automatically installs the appropriate device driver and configures the operating system, col. 10 lines 60 – 65, col. 11 lines 50 – 60).

6. **As to claim 6**, Selitrennikoff teaches wherein the installing step overrides an installation of a device driver associated with the first operating environment (update, col. 3 lines 45 – 55).

7. **As to claim 7**, Selitrennikoff teaches during the creating step, installation parameters are obtained from the first operating environment and used in the creation of the installation file (configuration file, col. 8 lines 15 – 25).

8. **As to claim 32**, this is the product claim of claim 1. See rejection for claim 1 above.

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**10. Claims 2 - 5, 8 - 9, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Philyaw, US patent. no. 6,725,260.**

11. **As to claims 2 - 5, Silitrennikoff does not explicitly teach wherein the first operating environment is non real-time operating environment and the second operating environment is real-time operating environment.**

Philyaw teaches wherein the first operating environment is non real-time operating environment and the second operating environment is real-time operating environment (col. 13 lines 25 – 50, col. 15 lines 10 - 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Silitrennikoff and Philyaw's system because the Philyaw's real-time mode would let the system immediately upgrade the driver for hardware components when resources changed, and Philyaw's system also teaches configuring and installing network component (title).

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12. **As to claim 8 - 9**, Philyaw teaches deleting the installation file (uninstall, col. 32 lines 8 – 10).

13. **As to claim 12**, Selitrennikoff modified by Philyaw teaches modifying (modifying for each particular device, col. 6 lines 10 – 20) to installation parameters to specify an installation file for a real-time driver.

14. **Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Wilson, US pub. no. 2003/0041088.**

15. **As to claim 13**, Wilson teaches updating registry (0018, figure 6 and associated text).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Selitrennikoff and Wilson's system because the registry can contains and recognizes all devices components for the system.

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**16. Claims 10 - 11, 14, 17, 19, 20 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Touboul, US patent no. 6,658,465.**

**17. As to claim 10,** Touboul teaches interrupt (interrupt, col. 7 lines 10 – 38) sharing for the reassigned resource so that an interrupt may be used for more than one resource.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Selitrennikoff and Touboul's system because the interrupt service would be used as a mean of communication to allocate and assign resources.

**18. As to claim 11,** Touboul teaches the steps of displaying (displayed, col. 5 lines 42 – 50) the resource for reassignment; and selecting an empty interface slot in the second operating environment to receive the resource being one of an interface, a card, a device and a port.

**19. As to claim 14,** Silitrennikoff a method automatically reassigning resources in a soft programmable logic controller, said automatically reassigning comprising the steps of:

identifying a resource to be reassigned from a first processing mode to a second

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processing mode (server locating the appropriate operating system or device driver of the client, col. 1 - 20, especially col. 3 lines 45 – 55);

creating an installation file containing information of at least one device driver (the updated operating system components and device drivers are made available for transfer to the client computer, col. 3 lines 45 - 55);

automatically installing the at least one device driver (automatically installs the appropriate device driver and configures the operating system, col. 10 lines 60 – 65, col. 11 lines 50 – 60) for the resource in the second processing mode using the information from the installation file so that any device in communication with the at least one device driver is functional.

Silitrennikoff does not explicitly teach assigning the resource for operation in the second processing mode by using installation parameters associated with the first processing mode; and remove the resource from operation in the first processing mode.

Touboul teaches assigning the resource for operation in the second processing mode by using installation parameters associated with the first processing mode; and remove the resource from operation in the first processing mode (allocate the resources, col. 16 lines 1 – 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Silitrennikoff and Touboul's system because Touboul's allocating resources would shift the resource between different operating system to trigger the installation process for the resources or devices being

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functional with the new operation system, and Touboul also teaches installing driver (table 2).

20. **As to claim 17**, Touboul teaches wherein in the assigning step includes associating the assigned resource with a software component instance (col. 16 lines 1 – 25).

21. **As to claim 19**, see rejection for claim 11 above.

22. **As to claim 20**, Silitrennikoff teaches building a list of available drivers for the selected resource (col. 10 lines 60 – 65, col. 11 lines 50 – 60).

23. **As to claim 21**, Silitrennikoff teaches the resource being one of a card, a port, an interface, and a device (card, col. 8 lines 60 – 65).

24. **Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Silitrennikoff, US patent no. 6,301,612 in view of Touboul, US patent no. 6,658,465, and further in view of Philyaw, US patent. no. 6,725,260.**

25. **As to claim 15**, Silitrennikoff does not explicitly teach wherein the removing step includes removing the resource from non real-time processing mode and the assigning

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step reassigning a card associated with the resource for operation in a real-time operating mode adapted to achieve real-time processing.

Philyaw teaches wherein the first operating environment is non real-time operating environment and the second operating environment is real-time operating environment (col. 13 lines 25 – 50, col. 15 lines 10 - 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Silitrennikoff, Touboul, and Philyaw's system because the Philyaw's real-time mode would let the system immediately upgrade the driver for hardware components when resources changed, and Philyaw's system also teaches configuring and installing network component (title).

**26. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Touboul, US patent no. 6,658,465, and further in view of Wilson, US pub. no. 2003/0041088.**

**27. As to claim 16, Wilson teaches updating registry (0018, figure 6 and associated text).**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Selitrennikoff, Touboul, and Wilson's system because the registry can contains and recognizes all devices components for the system.

**28. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Touboul, US patent no. 6,658,465, and further in view of Philyaw, US patent. no. 6,725,260.**

**29. As to claim 18,** Philyaw teaches modifying (modifying for each particular device, col. 6 lines 10 – 20) to installation parameters to specify an installation file for a real-time driver.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Silitrennikoff, Touboul, and Philyaw's system because the Philyaw's modifying for each particular device would let the system immediately upgrade the driver for hardware components when resources changed, and Philyaw's system also teaches configuring and installing network component (title).

**30. Claims 22, 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Nair, US patent no. 6,675,226.**

**As to claim 22,** Selitrennikoff teaches a method reassigning resources in a soft programmable logic controller (PLC), said reassigning comprising the steps of:

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selecting an interface (server locating the appropriate operating system or device driver of the client, col. 1 - 20, especially col. 3 lines 45 – 55) in a first operating environment;

selecting a virtual slot in a second operating environment for installation of the interface (locate the driver of the client operating system, col. 3 lines 45 - 55);

creating an installation file in the first operating environment for installation of the interface in the second operating environment (the updated operating system components and device drivers are made available for transfer to the client computer, col. 3 lines 45 - 55); and

installing the interface in the second operating environment using the installation file to reassign a resource between the first operating environment and the second operating environment (automatically installs the appropriate device driver and configures the operating system, col. 10 lines 60 – 65, col. 11 lines 50 – 60).

Silitrennikoff does not explicitly teach the step of the system adapted to the resource in a soft programmable logic controller.

Nair teaches the system adapted to the resource in a soft programmable logic controller (soft PLC/ soft programmable logic controller, col. 1 lines 50 - 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Silitrennikoff and Nair's system because Nair's soft PLC would allow a high-end desktop computer to simulate the operation of a special purpose control computer (col. 1 lines 50 – 65).

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**As to claim 31**, Silitrennikoff teaches the resource being one of a card, a port, an interface, and a device (card, col. 8 lines 60 – 65).

**31. Claims 23 – 26, 28 – 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Nair, US patent no. 6,675,226, and further in view of Philyaw, US patent. no. 6,725,260.**

**32. As to claim 23**, Silitrennikoff and Nair do not explicitly teach reassigning the resources to a real-time operating environment.

Philyaw teaches wherein reassigning the resources to a real-time operating environment (col. 13 lines 25 – 50, col. 15 lines 10 - 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Silitrennikoff and Philyaw's system because the Philyaw's real-time mode would let the system immediately upgrade the driver for hardware components when resources changed, and Philyaw's system also teaches configuring and installing network component (title).

**33. As to claim 24**, Selitrennikoff modified by Philyaw teaches modifying (Philyaw; modifying for each particular device, col. 6 lines 10 – 20) to installation parameters to specify an installation file for a real-time driver.

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34. **As to claim 25**, Selitrennikoff teaches wherein the installing step overrides an installation of a device driver associated with the first operating environment (update, col. 3 lines 45 – 55).

35. **As to claim 26**, Selitrennikoff teaches during the creating step, installation parameters are obtained from the first operating environment and used in the creation of the installation file (configuration file, col. 8 lines 15 – 25).

36. **As to claim 27 - 28**, Philyaw teaches deleting the installation file (uninstall, col. 32 lines 8 – 10).

37. **Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Nair, US patent no. 6,675,226, and further Touboul, US patent no. 6,658,465.**

38. **As to claim 29**, Touboul teaches interrupt (interrupt, col. 7 lines 10 – 38) sharing for the reassigned resource so that an interrupt may be used for more than one resource.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Selitrennikoff and Touboul's system

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because the interrupt service would be used as a mean of communication to allocate and assign resources.

**39. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Selitrennikoff, US patent no. 6,301,612 in view of Nair, US patent no. 6,675,226, and further in view of Wilson, US pub. no. 2003/0041088.**

**40. As to claim 30,** Wilson teaches updating registry (0018, figure 6 and associated text).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Selitrennikoff and Wilson's system because the registry can contains and recognizes all devices components for the system.

### ***Response to Arguments***

**41.** Applicant's arguments filed 8/7/06 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong N. Hoang whose telephone number is

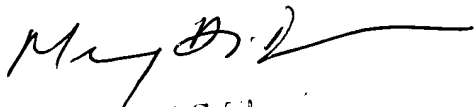
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(571)272-3763. The examiner can normally be reached on Monday - Friday 9:00 am to 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Thomson can be reached on 571-272-3718. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ph  
November 06, 2006

  
MENG-AL T. LIU  
SUPERVISORY PATENT EXAMINER  
NOV 06 2006